

LUKASHEV, V.K.

Form of sand particles of various genesis in Polesye. Dokl.
AN BSSR 8 no. 3:175-178 Mr '64. (MIRA 17:5)

1. Laboratoriya geokhimicheskikh problem AN BSSR. Predstavleno
akademikom AN BSSR K.I.Lukashevym.

LUKASHEV, K.I.; SUZHETSOV, V.A.; LUKASHEV, V.K.

Geochemical types of weathering surfaces in White Russian
Polesye. Dokl. AN BSSR 8 no.7:455-458 '64. (MIRA 17:10)

1. Laboratoriya geokhimicheskikh problem AN BSSR.

LUKASHEV, K.I.; KUZNETSOV, V.A.; LUKASHEV, V.K.

Geochemical processes in the landforms of the White Russian Polesye.
Dokl. AN BSSR 8 no.10:661-663 0 '64. (MIRA 18:3)

1. Laboratoriya geokhimicheskikh problem AN BSSR.

LUKASHEV, K.I.; SACHOK, G.I.; LUKASHEV, V.K.

Statistical indexes of the content of chemical elements in the
cover sediments of White Russian Polesye. Dokl. AN BSSR 9 no.2:
108-110 F '65. (MIRA 18:5)

1. Laboratoriya geokhimicheskikh problem AN BSSR.

LUKASHEV, K.I.; SACHOK, G.I.; LUKASHEV, V.K.

Barium in the cover beds of White Russian Polesye. Dokl. AN
BSSR 9 no. 4:243-246 Ap '65 (MIRA 19:1)

1. Laboratoriya geokhimicheskikh problem AN BSSR. Submitted
March 13, 1965.

LUKASHEV, K.I.; SACHOK, G.I.; LUKASHEV, V.K.

Effect of paleogeological conditions governing the formation
of Quaternary clays in the White Russian S.S.R. on their
chemical composition. Dokl. AN BSSR 9 no. 5:320-324 My '65
(MIRA 19:1)

1. Laboratoriya geokhimicheskikh problem AN BSSR. Submitted
April 22, 1965.

LUKASHEV, K.I.; SACHOK, G.I.; LUKASHEV, V.K.

Geochemical areas of calys based on their chemical indices.
Dokl. AN BSSR 9 no.6:387-392 Je '65. (MIRA 18:9)

1. Laboratoriya geokhimicheskikh problem AN BSSR.

LUKASHEV. K.I.; SACHOK. G.I.; LUKASHEV. V.K.

Lithological and geochemical characteristics of the clays of various
genetic types in the White Russian S.S.R. Dokl. AN BSSR 9 no.8:533-
536 1g '65. (MIRA 18:10)

1. Laboratoriya geokhimicheskikh problem AN BSSR.

LUKASHEV, Konstantin Ignat'yevich; LUKASHEV, Valentin Konstantinovich

[Science discloses the mysteries of nature] Nauka raskryvaet
tainy prirody. Minsk, Nauka i tekhnika, 1965. 159 p.
(MIRA 18:9)

LUKASHEV, K.I., akademik; Prinimali uchastiye: LUKASHEV, V.K.;
SACHOK, G.I.

Comparison of the lithological characteristics of loess in
White Russia with other Quaternary sediments. Dokl. AN BSSR
9 no.9:598-602 S '65. (MIRA 18:11)

1. Akademiya nauk Belorusskoy SSR (for Lukashev).

LUKASHEV, V.N.

GOMBAS, P.; GUROV, K.P., redaktor; BARABANOVA, N.Ye. [translator];

LUKASHEV, V.N. [translator]; IL'IN, B.M., tekhnicheskii redaktor

[Many-particle problems in wave mechanics; theory and solution methods] Problema mnogikh chastits v kvantovoi mekhanike (teoriia i metody resheniia). 2-e izd. Perevod s nemetskogo N.E.Barabanovoi i V.N.Lukasheva. Moskva, Izd-vo inostrannoi lit-ry, 1953. 276 p.
[Microfilm] (MLRA 7:9)

(Wave mechanics)

20707

9,6000 (also 1040, 1089)
9,6130

S/120/61/000/001/045/062
E194/E184

AUTHOR: Lukashev, V.N.

TITLE: A Sensitive Magnetometer with Balanced Coil

PERIODICAL: Pribery i tekhnika eksperimenta, 1961⁶ No.1, pp.149-152

TEXT: A magnetometer with balanced coil, which is simple and convenient in operation, has been constructed for relative measurements of magnetic fields from 20 oe and above with an accuracy of 0.01%. The magnetometer was used for a number of years in various laboratories in work with magnetic spectrometers. The operating principles of the instrument, shown in Fig.1, are based on balancing of a certain constant gravity torque G by a counter-acting magnetoelectric torque acting on a light coil with a current I on a measuring field H . The coil is suspended on fine horizontal supports and to it there is fixed a lever which sets up a torque G and a mirror for recording the zero position on a scale. Elementary design formulae are given for the instrument. The design of measuring coil depends on the range of measurement required, and similar factors. The magnetometer was used to measure fields of from 20 to 500 oe with an accuracy of Card 1/4

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S/120/61/000/001/045/062
E194/E184

A Sensitive Magnetometer with Balanced Coil

0.01% in a gap 16 mm long. The measuring coil of 12 mm diameter contained 500 turns of wire (1) -0.02 mm (PE-0.02 mm). The lever was made of aluminium foil and to it was fixed a mirror and a strip of foil for air damping. The entire suspension weighed about 100 milligrams. Various other design data are given. In measuring the field distribution in a plane of symmetry to an accuracy of 0.1% use was made of a coil 7 mm in diameter containing 150 turns based on a suspension 20 mm long. Precautions necessary to ensure stability are stated in general terms and other precautions are briefly described. Stability of measurement appears to be governed largely by the properties of the suspension threads. Tungsten suspensions have very good elastic properties as compared with other materials such as phosphor bronze. The tensile strength of tungsten is also very high. Stability and accuracy of the instrument were checked in various ways and the tests gave good results. The long term stability and accuracy were 0.01%, a figure which was mainly governed by the accuracy of measurement of current.

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S/120/61/000/001/045/062
E194/E184

A Sensitive Magnetometer with Balanced Coil

Acknowledgements are expressed to V.S. Shipnel for suggesting this theme.

There are 3 figures and 2 Soviet references.

ASSOCIATION: Voeniya artilleriyskaya inzhenernaya akademiya
(Military Artillery Engineering Academy)

SUBMITTED: December 3, 1959

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S/120/61/000/001/045/062
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A Sensitive Magnetometer with Balanced Coil

Legend to Fig. 1:

- O - rotation axis; 3 - mirror;
- U - centre of gravity;
- KK' - coil plane; $\Gamma\Gamma'$ - horizontal;
- HH' - direction of the magnetic field;
- OP - lever.

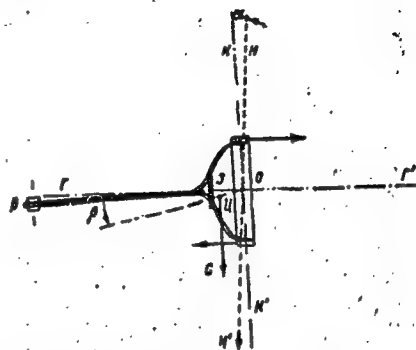


Fig. 1

Card 4/4

LUKASHEV, V.N.

Analysis of electron trajectories in a central-source axial beta-spectrometer. Prib. i tekhn. eksp. 6 no.2:26-32 Mr-Ap '61.
(MIRA 14:9)

1. Voyennaya artilleriyskaya inzhenernaya akademiya.
(Spectrometer) (Electrons)

LUKASHEV, V.N. (Astrakhan)

"Information on North-Caspian Fishing in the Light of Modern Theory of Exploitation of Fish School"

Report presented at the 3rd Conference on the use of Mathematics in Biology, Leningrad University, 23-28 Jan. 1961.

(Primeneniye matematicheskikh Metodov v Biologii. II, Leningrad, 1963 pp 5-11)

LUKASHEV, Ye. A., inzh.; SHUMILIN, G.I., inzh.

Using prestressed reinforced columns made of blocks. Nov. tekhn. i pered.
op. v stroi 20 no.11:14-16 N '58. (MIRA 11:11)
(Columns, Concrete)

L 19354-66 EWT(1)/ECC GW
 ACCESSION NR: AT5014098

UR/2566/65/079/000/0023/0030

AUTHOR: Lukashev, Yu. F.

TITLE: Instrumental determinations of the carbon dioxide content in the atmosphere in the Gelendzhik region

SOURCE: AN SSSR. Institut okeanologii. Trudy, v. 79, 1965. Metody morskikh gidrokhimicheskikh issledovaniy (Methods of marine hydrochemical research), 23-30

TOPIC TAGS: atmospheric pollution, atmospheric carbon dioxide, optical acoustic gas analyzer

ABSTRACT: The OA 2210 optical-acoustic gas analyzer was constructed and put into continuous self-registering operation in 1962 at the Chernomorskaya eksperimental'naya nauchno-issledovatel'skaya stantsiya, IO, AN SSSR (Black Sea Experimental Scientific Research Station, IO, AN SSSR) located in the Gelendzhik region. The purpose was to check theoretical predictions concerning the atmospheric CO₂ content by compiling a continuous record of the CO₂ content in the air. The description of the operation and construction of the gas analyzer is followed by data on the seasonal and daily variations in CO₂ concentration and its long-term average ($310 \cdot 10^{-6}$ atm), and data on CO₂ concentration as a function of air mass origin. Long-term averages

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L 19354-66

ACCESSION NR: AT5014098

are of special importance for checking theories concerning the accumulation of CO₂ in the atmosphere because of the combustion of fossil fuels (G. Callendar, J. Roy. Met. Soc., 1938, 64; G. N. Plass, Priroda, 1960, no. 12). However, the observation of CO₂ content over Gelendzhik from the year 1959 on does not confirm such theories. On the contrary, the CO₂ content recently became somewhat lower than in earlier years. Nevertheless, a five-year observation cycle can not serve as a reliable argument against the above-mentioned theories. Additional continuous observations are in order. Orig. art. has: 3 figures and 6 tables. [08]

ASSOCIATION: Institut okeanologii Akademii nauk SSSR (Institut of Oceanography, Academy of Sciences, SSSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: ES, Gc

NC REF SOV: 004

OTHER: 004

ATD PRESS: 4018

Card 2/2

LUKASHEVA, E. K.

"Involute of Certain Surfaces with the Maximum Practical Possible Accuracy." Sub 13 Feb 51, Moscow Order of the Labor Red Banner Construction Engineering Inst imeni V. V. Kuybyshev
Cand. Technical Sci.
Dissertations presented for science and engineering degrees in Moscow during 1951.

SC: Sum. No. 480, 9 May 55

LUKASHEVA, E.K., kandidat tekhnicheskikh nauk.

[Layout system for circular air duct T-joints] Postroenie raskroev troinikov
kruglykh vozdukhovodov. Moskva, Gos.izd-vo lit-ry po stroitel'stvu i arkhi-
tekture, 1953. 37 p. (MIRA 6:7)
(Air pipes)

24(6), 7(7), 8(2)

AUTHORS:

Zelikman, G. A., Engineer, SOV/105-59-1-16/29
Levenberg, Ya. S., Engineer, Lukashova, I. P., Engineer,
Sidorov, Yu. I., Engineer, Fronk, S. V., Engineer

TITLE:

Junction-Type Silicon Diodes (Ploskostnyye kremniyevyye diody)

PERIODICAL:

Elektrichestvo, 1959, Nr 1, pp 64-68 (USSR)

ABSTRACT:

This investigation concerns the manufacturing process and electric properties of silicon rectifier diodes of the types D 202 to D 205. These are obtained by the method of melting aluminum with the silicon of the n-type. These diodes are obtained from silicon with a specific resistance of 10-30 ohmcentimeters, and show an operating inverse voltage of 100-400 volts and a rectified current of 400 ma. The admissible working temperature of such diodes is + 125°C. These diodes can be used in circuit schemes for rectifying an alternating current with a frequency up to 100 kilocycles. The construction of these diodes is described. It is based on the construction of the germanium diode D-7. Then the volt-ampere characteristics are examined. The principal properties of the diode are expressed by the volt-ampere characteristics (static characteristics) taken at direct

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Junction-Type Silicon Diodes

SOV/105-59-1-16/29

current. The static characteristic and the admissible power greatly mark the quality of the diode. But in order to obtain parameters approaching the working method of rectifier diodes, the characteristic is taken at alternating current in a number of cases (dynamic characteristic). The classification of diodes is given. They are divided in 4 groups according to the magnitude of inverse voltage. The diodes shown here may be also connected in series. Finally, the prospects of development of diodes are illustrated. With the use of Si it will become possible in the near future to obtain diodes for inverse voltages of over 1000 volts, rectifier columns for dozens of kilovolts, large diodes for dozens of amperes, and diodes for special purposes with very small return currents and increased limiting frequency. To obtain diodes with high puncture voltage, it might be of advantage to use the stretching method. This method permits to obtain the fields with different conducting capacities of the crystal during the production of the silicon monocrystal. In the development of diodes, attention is directed more and more to the diffusion method. Some preliminary data on the obtaining of p-n-transitions according to the diffusion method are given

Card 2/3

Junction-Type Silicon Diodes

SOV/105-59-1-16/29

here. M. I. Iglitsyn, Candidate of Technical Sciences,
discussed the work with the authors. There are 4 figures
and 1 table.

SUBMITTED: May 4, 1958

Card 3/3

KOTLYAROVA, Kh. S.; POLYAKOVA, A.M.; LUKASHOVA, L.V.

Principles of selection of vaccinal strains of Brucella. Vest. AMN
SSSR 14 no.2:42-49 '59. (MIRA 12:4)

1. Iz instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR
(dir. - prof. S.N. Muromtsev) Nauchno-issledovatel'skogo instituta
Kavkaza i Zakavkaz'ya (dir. V.N. Ter-Vartanov), Leningradskogo Instituta
epidemiologii, mikrobiologii i gigiyeny imeni Pastera (dir. M.Ya. Nikitin).
(BRUCELLOSIS, immunol.

vacc. strains, principles of selection (Rus))

KREMNEVA, S.N.; MARTYNOVA, A.P.; PIMENOVA, Z.M.; TOLGSKAYA, M.S.; LUKASHEVA, N.A.

Industrial toxicology and hygiene in the production of polifen fibers.
Toks. nov. prom. khim. veshch. no.5:123-135 '63. (MIRA 17:9)

LUKASHOVA, O

M

EPP
.R92927

SOVetskaya Strana v period perekhoda no mirnyayu rabotu po vosstanovleniyu
narodnogo khozyaystva obrazovaniye SSSR. (1921-1925 gg) Moskva, IZD-VO
znaniye, 1952.

55 P. (Vsesoyuznoye obshchestvo po rasprostraniyu politicheskikh i
nauchnykh znaniy. 1952, seria L, no 53-54)

RUSSIA

LUKASHOVA, T. F.

"Complications Following the Extractions of Lower Wisdom Teeth and their Treatment."

SO: Stomatologiya, No. 2, 1948. Capt. Med. Service, -c1948. Mbr. Dept. Plastic Surgery., Saratov Maxillofacial Hosp., -c1948-.

PETROV, A.M., inzh.; LUKASHEVA, T.T., inzh.

Expenditure of spare parts and materials on capital and operational repairs of the SM-11A, SM-16A and S-182A stone crushers. Spor. trud. NIIZHelezobetona no.3:134-146 '60. (MIRA 15:2)
(Stone and ore breakers--Maintenance and repair)

PETROV, A.M., inzh.; LUKASHEVA, T.T., inzh.

Granular composition of products obtained by the use of jaw
crushers, cone, short-shaft cone, and rotary crushers in the pro-
cessing of carbonate rocks. Sbor. trud. NIIZHelezobetona no.8:
36-44 '63 (MIRA 18:1)

LUKASHEVA, V.B.

Case of epidermoid papilloma of the palatine tonsil. Zhur. ush.,
nos. 1 gorl. bol. 20 no.6:83 N-D '60. (MIRA 15:2)

1. Otdeleniye bolezney ukha, gorla i nosa gorodskoy bol'nitsy
No.9 g. Dnepropetrovsk.
(TONSILS--TUMORS)

LUKASHEVICH, Ye.F. [Lukashovich, I.E.Kh.]; NOVIKOVA, A.A. [Novykova, A.A.]

Changes in water-soluble proteins in the muscles after denervation and tenotomy. Ukr. biokhim. zhur. 35 no.2:195-201 '63. (MIRA 17:9)

1. Department of biochemistry of Dniepropetrovsk Medical Institute.

KNYAZ'KOV, M.A., dots.; LUKASHEVA, Ye.K., kand. tekhn. nauk

[Exercises in descriptive geometry] Uprazhnenia po nachertatel'noi geometrii. Izd.4., perer. i dop. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1962. 81 p. (MIRA 16:4)

(Geometry, Descriptive)

COMMON ELEMENTS										COMMON VARIABLES INDEX									
1ST AND 2ND COLUMNS										3RD AND 4TH COLUMNS									
PROCESSES AND PROPERTIES INDEX 9 77 LUKASHEVA, Ye.N. •Microchemical Reaction for Copper, Using $(NH_4)_2Hg(CNS)_4$. I. M. Korenman and E. N. Lukashova (Zuradskia Laboratoria (Works' Lab.), 1936, 5, (12), 1438-1440).—[In Russian.] The sensitivity of the microchemical test for Cu is increased by the presence in solution of Zn^{2+}, Cd^{2+}, Ni^{2+} and Pb^{2+}, which form characteristically coloured mixed crystals in the presence of small amounts of Cu. Zn^{2+} and Cd^{2+} are particularly suitable, as they form with Cu^{2+} violet-coloured crystals of the type: $(Zn,Cu)Hg(CNS)_4$. The Cu must first be separated from the metals which do not give ammines, and, after the addition of 1-2 drops of a 20% $ZnSO_4$ or $CdSO_4$ solution, the mixed salt is precipitated by adding 1-2 drops of $(NH_4)_2Hg(CNS)_4$. In the presence of Cd^{2+} it is possible to detect 0.05 γ Cu, with a Cu: Cd ratio of 1:60,000. In the absence of Zn^{2+} or Cd^{2+}, the sensitivity is 0.3-1.25 γ Cu, provided that the Cu: Co and Cu: Ag ratios do not exceed 1:30 and 1:16, respectively.—D. N. S.																			
ABB-51A METALLURGICAL LITERATURE CLASSIFICATION SEARCHED INDEXED SERIALIZED FILED APR 1937																			

SOV/32-24-9-12/53

AUTHORS: Lukashova, Ye. N., Baram, N. M., Kuznetsova, V. G.

TITLE: Method for the Analysis of the Copper-Borofluoro Borate
Electrolyte (Metodika analiza borftoroboratno-mednogo elektrolita)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr 9, pp 1067-1068 (USSR)

ABSTRACT: At this institute (no name given) the copper separation is carried out from electrolytes containing copper-fluoro borate $\text{Cu}(\text{BF}_4)_2$, free fluoboric acid HBF_4 , and boric acid H_3BO_3 . In the laboratories of the institute, a method for the control of these electrolytes was developed. It is based on an electrolytical separation of copper from the solution and a subsequent hydrolytic splitting of the fluoboric acid by means of boiling with magnesium sulfate. In this process, sulfuric acid is formed in a quantity equivalent to the content of fluorions. The sulfuric acid can be titrated with a base (indicator methyl red). The initial boric acid, as well as that produced by hydrolysis, can be titrated with mannite or invert sugar (indicator bromothymol blue). The analysis takes 3 - 4 hours, and yields good results. A table of the results obtained and the analytical procedure are given.

Card 1/2

YEFREMOV, Yu.K.; LUKASHEVA, Ye.N.

Aleksandr Sergeevich Barkov; obituary. Vop.geog.36:224-227 '54.
(Barkov, Aleksandr Sergeevich, 1873-1953) (MIRA 8:4)

GRATSIANSKIY, Andrey Nikolayevich; LUKASHOVA, Ye.N., redaktor; LAVRENT'-
YEVA, Ye.V., redaktor; KOSHELEVA, S.M., tekhnicheskiy redaktor

[The nature of Yugoslavia] Priroda Yugoslavii. Moskva, Gos. izd-vo
geograficheskoi lit-ry, 1955. 241 p. (MLRA 8:6)
(Yugoslavia--Physical geography)

LUKASHEVA, Ye.N.

B.F. Dobrynin. Zamlevedenie 4:284-287 '57.
(Dobrynin, Boris Fedorovich, 1885-1951)

(MIRA 10:9)

LUKASHOVA, Yevgeniya Nikolayevna; SMIRNOVA, N.P., red.; ANDREYEVA, K.A.,
red.kart; ~~MAKHOVA, N.M.~~, tekhn.red.

[South America; its physical geography. A manual for teachers]
Iuzhnaia Amerika; fizicheskaiia geografiia; posobie dlia uchitelei.
Moskva, Gos.uchebno-pedagog.izd-vo.M-va prosv. RSFSR, 1958.
464 p. (MIRA 12:2)

(South America--Physical geography)

LUKASHOVA, Yevgeniya Nikolayevna; LYALIKOV, Dmitriy Nikolayevich;
ZABIROV, B.Sh., red.; KOSHIZLEVA, S.M., tekhn.red.

[Columbia] Kolumbiia. Moskva, Gos.izd-vo geogr.lit-ry,
1959. 48 p. (MIRA 12:9)
(Columbia)

LUKASHEVA, YE. N.

"General Complex Physico-geographical Land Maps of the Earth."

report to be submitted for the Intl. Geographical Union, 10th General Assembly and
19th Intl. Geographical Congress, Stockholm, Sweden, 6-13 August 1960.

DIKO, N.S.; LUKASHOVA, Ye.N.; NITOBURG, E.L.; SHTRAKHOV, A.I.; ZABIROV,
B.Sh., red.; SERGEYEVA, S.I., red.; LEBEDEVA, S.K., red.;
GREVTSOVA, V.A., tekhn.red.

[Argentina, Paraguay, Uruguay, Chili; 1:5000000] Argentina,
Paragvai, Urugvai, Chili; 1:5000000. Moskva, Gos.izd-vo geogr.
lit-ry, 1961. — [Text] 1961. 36 p. (MIRA 15:4)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye geodezii i
kartografii.
(South America—Maps)

LUKASHEVICH, A.

USSR/General and Special Zoology. Insects. Injurious
Insects and Ticks. Pests of Cereal Crops

P

Abs Jour : Ref Zhur - Biol., No 11, 1953, No 49590

Author : Lukashevich A.

Inst : -

Title : The Cereal Ground Beetle (Zabrus tenebrioides Goeze)
- a dangerous Pest of Cereal Crops

Orig Pub : Agrikultura shi viteritul Moldovey, Zemelodeliye
i zhivotnovodstvo Moldavii, 1957, No 4, 74-75

Abstract : No abstract

Card : 1/1

LUKASHEVICH, A.A., kand.tekhn.nauk, dots.

Determining the efficiency of the main engine in multibucket
dredgers. Trudy LIIVT no.20:88-96 '53. (MIRA 12:1)
(Dredging machinery)

LUKASHEVICH. A. A.

The theory of a ship; a textbook. Leningrad Gos. izd-vo sudostroita. lit-ry, 1950.
446 p. (50-38214)

VM600.L96

ZAGAYKEVICH, D.N.; LUKASHEVICH, A.A., redaktor; MINYAYEVA, I.A.,
redaktor KONTOROVICH, A.T., tekhnicheskiy redaktor

[Ship theory] Teoriia korablia. Pod red. A.A. Lukashovicha.
[Leningrad] Gos. izd-vo sudostroitel'noi lit-ry, 1953. 299 p.
(Naval architecture) (MIRA 7:8)

LUKASHEVICH, Aleksandr Aleksandrovich, kandidat tekhnicheskikh nauk.
GORYANSKIY, Yu.V., redaktor; ALFER'YEV, M.Ya., retsenzent; SEMENOV-
TYAN'SHANSKIY, V.V., retsenzent.

[Problems in ship theory] Zadachnik po teorii korablia. Leningrad,
Gos. izd-vo vodnogo transporta, 1954. 259 p. (MLRA 7:11)
(Naval architecture--Problems, exercises, etc.)

ALFER'YEV, Mikhail Yakovlevich, prof., doktor tekhn.nauk; LUKASHEVICH, A.A.,
retsensent; VASIL'YEV, A.V., red.; SHLENNIKOVA, Z.V., red.izd-va;
YERMAKOVA, T.T., tekhn.red.

[Theory of ship construction; floatability, stability, buoyancy,
and ship launching] Teoriia korablia; plavuchest', ostoichivost',
nepotopliaemost' i spusk korablia na vodu. Moskva, Izd-vo
"Rechnoi transport," 1959. 491 p. (MIRA 13:2)
(Naval architecture)

LUKASHEVICH, A.B., inzh.

Calculation of hydrodynamic characteristics of an underwater
V-shaped wing intersecting a free surface of water. Trudy NTO
sud.prom. 8 no.4:153-172 '59. (MIRA 13:5)
(Planing hulls) (Frictional resistance (Hydrodynamics))

USSR / General and Special Zoology. Insects. Harmful P
Insects and Arachnids. Pests of Grain Crops.

Abs Jour: Ref Zhur-Biol., No 14, 1958, 64018.

Author : Lukashevich, A. F.

Inst : Not given.

Title : The Protection of Grains Against the Ground
Beetle in Moldavia.

Orig Pub: Zashchita rast. ot vredit. i. bolezney, 1957,
No 4, 29.

Abstract: According to data supplied by the Ministry of
Agriculture, more than 15% of the winter young
crop was fully or partially destroyed by ground
beetles in Moldavia in 1955. The biology and
measures of controlling the ground beetles are
expounded. Good results are secured by dusting
the crop with BHC (20-30 kg/ha), to be carried

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USSR / General and Special Zoology. Insects. Harmful P
Insects and Arachnids. Pests of Grain Crops.

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001030730003-4

Abs Jour: Ref Zhur-Biol., No 14, 1958, 64018.

Abstract: out in the fall immediately after the appearance
of the larvae and repeated in the spring. At
the irrigation dusting of 12,000 hectares of winter
wheat in the spring of 1956, 50-70% of larvae
perished at the expenditure of 38 r 70 k per one
hectare. -- A. P. Adrianov.

Card 2/2

LUKASHEVICH, A.F., agronom; NIKOLAYENKO, M.S., agronom

Planning plant protection measures on the collective farms of
Moldavia. Zashch.rast.ot vred.i bol. 4 no.6:11-12 N-D '59.
(MIRA 15:11)

1. Kolkhoz "Krasnyy sadovod", Benderskogo rayona.
(Moldavia--Plants, Protection of)

MAMEDOV, S.G.; LUKASHEVICH, A.F., agronom (Kishinev)

The weevil *Tanymedus dflaticollis* Gyll. Zashch. rast. ot vred. i bol.
7 no.8:56 Ag '62. (MIRA 15:12)

1. Nakhichevanskaya zonal'naya opytnaya stantsiya (for Mamedov).
(Corn (Maize)—Diseases and pests) (Weevils)

1000-0000, 1000

"On the Treatment of Chickpea Seeds (Against Ascochyta and Fusarium)." Selektsiya i
Semenovodstvo, vol. 18, no. 10, 1961, pp. 70-71. 61.9 345

Co: Mira 61-50-53, 15 Dec. 1953

USSR/Plant Diseases. Diseases of Cultivated Plants.

0

Abs Jour: Ref Zhur-Biol., No 5, 1958, 20678.

Author : Nemliyenko, F. Ye.; Lukashevich, A.I.

Inst :

Title : Agricultural Engineering Measures Against Chick
Pea Askochytois.

Orig Pub: Zashchita rast. ot vredit. i bolezney, 1957,
No 4, 31-33.

Abstract: No abstract.

Card : 1/1

LUKASHEVICH, A.I., agronom po zashchite rasteniy

Timely control measures prevent extensive outbreaks of pests and
plant diseases. Zashch.rast.ot vred. i bol. 3 no.2:7-9 ~~kr~~-Ap '58.
(MIRA 11:4)

1. Novomoskovskaya mashinno-traktornaya stantsiya Dnepropetrovskoy
oblasti.

(Plant diseases) (Agricultural pests)

AUTHOR:

Lukashevich, A. I.

21-58-7-25/27

TITLE:

Peculiarities of the Parasitism of the Chick-Pea Blight Agent and Their Role in Infection Cumulation (Osobennosti parazitizma vozbuditelya askokhitoza nuta i ikh rol' v nakoplenii infektsii)

PERIODICAL:

Dopovidi Akademii nauk Ukrain'skoi RSR, 1958, Nr 7, pp 788-792 (USSR)

ABSTRACT:

The chick-pea blight agent, the fungus *Ascochyta rabiei* (Pass.) Labr., possesses well developed properties of an optional saprophyte: it is normally parasitic, but passes to saprophytic development when the plant dies. This circumstance is of great importance in the process of preserving and accumulating the infection which spreads the disease to chick-pea crops. During late harvesting on the steppe of the Ukraine or when the chick-peas remain in ricks before threshing in rainy weather for a long time, the infectiousness of the seeds may increase 1.5 to 2 times; the infection also increases considerably by the springtime in post-harvest residues of chick-peas which remained on the fields during the winter. The fungus has a pronounced strict specialization in respect of chick-peas, which remains not only on the green plants during development, but also on the post-harvest

Card 1/3

21-58-7-25/27

Peculiarities of the Parasitism of the Chick-Pea Blight Agent and Their Role in Infection Cumulation

residues, although its pure cultures grow well on many artificial and natural nutrient media. This study was carried out under the guidance of Doctor of Agricultural Sciences, Professor F.Ye. Nemliyenko. There are 4 photos and 7 references, 5 of which are Soviet, 1 French and 1 English.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut kukuruzy
(All-Union Scientific Research Corn Institute)

PRESENTED: By Member of the AS UkrSSR, P.A. Vlasyuk

Card 2/3

21-58-7-25/27

Peculiarities of the Parasitism of the Chick-Pea Blight Agent and Their
Role in Infection Cumulation

SUBMITTED: February 10, 1958

NOTE: Russian title and Russian names of individuals and institutions appearing in this article have been used in the transliteration.

1. Fungi--Physiology
2. Fungi--Properties
3. Chick-peas
--Growth

Card 3/3

LUKASHEVICH, L.I., Cand Biol Sci — (diss) "Agrobiological principles of ~~measures~~ ^{for controlling} ~~of combating~~ chick-pea ascochyta ^{d.} ~~osis~~.
Khar'kov, 1959. 16 pp (Min of Higher Education UkrSSR. Khar'kov
Order of Labor Red Banner State U im A.M. Gor'kiy). 150 copies
(KL, 39-59, 103)

32

LUKASHEVICH, A.I.

We teach by example. Zashch.rast.ot vred.i bol.. 7 no.5:8-10
My '62. (MIRA 15:11)

1. Zaveduyushchiy otделom zashchity rasteniy Kirovogradskoy
gosudarstvennoy sel'skokhozyaystvennoy opytной stantsii.
(Kirovograd Province—Plants, Protection of)

LUKASHEVICH, A.I., kand.biolog.nauk

Give all attention to the control of smuts. Zashch. rast. ot vred.
i bol. 6 no.7:17 JI '61. (MIRA 16:5)

1. Kirovogradskaya sel'skokhozyaystvennaya opytnaya stantsiya.
(Smuts)

LUKASHEVICH, A.I., kand. biolog. nauk

Acting in accordance with the needs of agriculture. Zashch.
rast. ot vred. i bol. 8 no.10:3-4 O '63. (MIRA 17:6)

1. Zaveduyushchiy otделom zashchity rasteniy Kirovogradskoy
sel'skokhozyaystvennoy opytной stantsii.

LUKASHEVICH, A. M., PERNIK, A. D., FIRSOV, G. A.

"Theory of the Ship", published by State Publishers of Shipbuilding Literature.
Moscow, 1950.

BEZUGLOV, I.Ye.; KURDYUMOV, V.N., inzh.; V rabote prinimali uchastiye:
 GABRILENKO, I.V.; GRABOVSKIY, I.I.; NESHCHADIM, A.G.; BELOBORODOV,
 V.V.; VISHNEPOL'SKAYA, F.A.; MATSUK, Yu.P.; GAYTSKHOKI, N.I.;
 USACHEV, A.S.; ABKINA, N.N.; RUMYANTSEVA, A.G.; KOSHELEV, A.P.;
 GRIGOR'YEV, F.L.; LUKASHEVICH, A.M.; STYAZHKINA, A.G.; MIKHAYLOVICH,
 A.N.; YEDEMSKIY, P.M.; MASLOV, P.V.; KUDRYASHEVA, Z.P.; PROSMUSHKIN,
 R.M.; SHTAL'BERG, V.A.; BOYTSOV, N.I.

Operational experience with a newly introduced oil-extraction line
 equipped with the DS-70 belt-conveyer extractor. Masl.-zhir.prom.
 26 no.3:29-31 Mr '60. (MIRA 13:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov (for
 Bezuglov, Gabrilenko, Grabovskiy, Neshchadim, Beloborodov,
 Vishnepol'skaya, Matsuk and Gaytskhoki). 2. Leningradskiy
 zhirovoy kombinat (for Kurdyumov, Usachev, Abkina, Rumyantseva,
 Koshelev, Grigor'yev, Lukashevich, Styazhkina, Mikhaylovich,
 Yedemskiy, Maslov, Kudryasheva, Prosmushkin). 3. Leningradskoye
 otdeleniye tresta "Prodmontazh" (for Shtal'berg and Boytsov).
 (Leningrad--oils and fats)
 (Extraction apparatus)

YEZERSKIY, M.D.; ALEKSANDROV, I.K.; SMIGEL'SKIY, P.K.; KOBALENKO, V.I.;
LUKASHEVICH, A.S.; KUZNETSOV, M.I.

Improving postal service. Vest. svyazi 15 no.3:16-18 Mr '55.

(MLRA 8:5)

1. Nachal'nik otдела pochtovoy svyazi Ministerstva svyazi Uzbekskoy SSR (for Yezerkiy).
 2. Zamestitel' nachal'nika Severo-Osetinskogo upravleniya svyazi (for Aleksandrov).
 3. Nachal'nik Kabardinskogo upravleniya svyazi (for Kovalenko).
 4. Nachal'nik strakhovogo otдела Yuzhno-Sakhalinskoy kontory svyazi (for Lukashevich).
 5. Zamestitel' nachal'nika Penzenskogo oblastnogo upravleniya svyazi (for Kuznetsov).
- (Postal service)

RASSOLOV, A.I.; LUKASHEVICH, A.S.

Practice of repairing hot glass furnaces. Stek. i ker. 22 no.4:37-
38 Ap '65. (MIRA 18:5)

LUKASHEVICH, A.T., inzh.

Schools for advanced work methods at enterprises of the Northern
Caucasus Economic Council. Opyt rab. po tekhn. inform. i prop.
no.4:26-28 '63. (MIRA:17:1)

1. TSentral'noye byuro tekhnicheskoy informatsii Severo-Kavkazskogo
soveta narodnogo khozyaystva.

LUKASHEVICH, D. N., PROF

PA 53T75

USSR/Medicine - Medicine, Military
Medicine - Training

Nov 1947

"Military Medical Academy imeni S. M. Kirov," Prof D.
N. Lukashevich, Maj Gen (Med); Docent L. Ya. Skorokho-
dov, Lt Col (Med), 8 pp

"Voen-Medits Zhurnal" No 11

Briefly describes history and functions of Military
Medical Academy imeni Kirov, factor in rapid improve-
ment of military medicine. Soviet military medicine
paralleled general development of nation in rise from
agricultural economy to become one of great industrial
powers of world.

LC

53T75

LUKASHEVICH, D. N.

"150th Anniversary of the Military Medical Academy in S. M. Kirov."

SO: Sov. Med., No. 6, 1949. Prof. Leningrad. -1949-.

LUKASHEVICH, F.A., inzh.

Modernizing electric furnaces used for heating pipes. Sudostroenie
24 no. 6:59 Je '58. (MIRA 11:8)

(Furnaces, Heating)
(Marine pipe fitting)

LUKASHEVICH, H. I.

12000

29173
S/021/60/000/009/006/009
D210/D303

AUTHOR: Lukashevych, H.I.

TITLE: Investigating the effect of galvanic coatings on the strength of press joints

PERIODICAL: Akademiya nauk Ukrayins'koyi RSR. Dopovidi, no. 9, 1960, 1198 - 1201

TEXT: The most promising way to protect press joints against corrosion is by a galvanic coating. The author investigates the influence of such coatings on: 1) Cold welding. 2) Corrosion durability. 3) Increase of elastic and plastic deformations. 4) Change of initial smoothness of jointed surfaces. 5) Change of physical chemical properties on the surface layers of metals. The coatings the author used in his experiments were: One-layer chroming, multi-layer chroming, one-layer nickeling, multi-layer nickeling, welding, no coating (dry), no coating (with lubricants). The metals joined were Steel 45. All components were turned to the seventh order of smoothness (∇_7) and were measured on a profilograph profilemeter "Ka-Card 1/2

X

29173

S/021/60/000/009/006/009
D210/D303

Investigating the effect of ...

libr - V.Ye.I.". The coefficients of friction in press joints were determined with different galvanic coatings, loaded with axial stresses, separately for pressing and torsion. In the case of press joints the strength increases 6.5 - 6.8 times, in the case of torsion, 4.3 times, compared with the strength of press joints when using lubricants. This could be explained by the fact that in the case of galvanic coats, the actual surface of contact increases and prevents scores and damage to the surface of press joint parts. They also promote the formation of metallic connections in the contact zone, and change in addition the parameters of the metallic surfaces, on which the strength of the press joints depends. There are 3 figures, 1 table and 7 Soviet-bloc references.

ASSOCIATION: Instytut budivel'noyi mekhaniky AN URSR (Institute of Building Mechanics AS UkrSSR)

PRESENTED: by Academician P.P. Byelankin AS UkrSSR

SUBMITTED: December 30, 1959

Card 2/2

LUKASHEVICH, G. I., Cand Tech Sci -- "Study of the effect of
galvanic plating ^{upon strength} on the ~~stability~~ of pressed compounds."

Kiev, 1961. (Min of Higher and Sec Spec Ed UkSSR. Kiev
Technol Inst of Light Industry) (KL, 8-61, 245)

- 265 -

PAVLOV, A.I., kand.tekhn.nauk, dotsent; LUKASHEVICH, G.I., inzh.

Comparison characteristics of the methods and instruments for
determining the tangential strength of textile materials. Report
No.1. Izv.vys.ucheb.zav.; tekhn.prom. no.5:34-39 '61.
(MIRA 14:12)

1. Kiyevskiy tekhnologicheskii institut legkoy promyshlennosti.
Rekomendovana kafedroy materialovedeniya.
(Textile industry--testing)

PAVLOV, A.I., kand.tekhn.nauk, dotsent; LUKASHEVICH, G.I., inzh.

Comparison characteristics of the methods and instruments for determining the tangential strength of textiles. Report No.2:
New apparatus for determining the tangential strength of textiles.
Izv.vys.ucheb.zav.; tekhn.prom. no.6:35-37 '61. (MIRA 14:12)

1. Kiyevskiy tekhnologicheskii institut legkoy promyshlennosti.
Rekomendovana kafedroy materialovedeniya.
(Textile industry---Testing)

LUKASHEVICH, Georgiy Ivanovich; LUPANDIN, I.V., red.

[Strength of press-fitted joints with electroplating]
Prochnost' pressovykh soedinenii s gal'vanicheskimi
pokrytiyami. Kiev, Gostekhizdat USSR, 1961. 59 p.
(MIRA 18:6)

LUKASHEVICH, G.I [Lukashevych, H.I.], kand. tekhn. nauk; SHERSHNEV, Ye.S.
[Shershnev, I.E.S.]; SKVARIK, V.P. [Skvaryk, V.P.], kand. tekhn.
nauk

Ways to lengthen the service life and improve the reliability of
machinery in light industries. Leh. prom. no.1:28-32 Ja-Mr '65.
(MIRA 18:4)

PETKO, I.V., inzh.; LUKASHEVICH, G.I., kand. tekhn. nauk

Increasing the wear resistance and fatigue strength of machine
parts. Mashinostroenie no.3:9-10 Vy-Je '65. (MIRA 18:6)

BUDYLIN, M.M., inzh.; LUKASHEVICH, G.I., kand. tekhn. nauk; PETKO, I.V., inzh.

Increasing the reliability and durability of the K-750K
motorcycle. Mashinostroenie no.5:45-48 S-O '65.

(MIRA 18:9)

LUKACHEVICH, G.I., kand. tekhn. nauk, LAVRINENKO, Ye.T., inzh.

Using electroplated coatings for reducing the noise and improving
the running-in of gear transmissions. Mashinostroenie no.5:
86-87 S-O '65. (MIRA 15:9)

FRUMIN, Yu. I.; LUKASHEVICH, G. Ye., inzh., retsenzents; KUNIN, P. A., inzh., red.;
UVAROVA, A. F., tekhn. red.
[High-production thread-generating tools] Vysokoproizvoditel'-
nyy rez'boobrazuyushchiy instrument. Moskva, Mashgiz, 1963.
162 p. (MIRA 16:6)
(Screw cutting) (Screw-thread rolling)

I 24372-66 ENT(1)/ENT(m)/EPF(n)-2 IJP(c) JD/JG

ACC NR: AP6010437

SOURCE CODE: UR/0386/66/003/005/0212/0216

AUTHOR: Sklyarevskiy, V. V.; Lukashevich, I. I.; Romanov, V. P.; Filippov, N. I.; Venevtsev, Yu. N.; Viskov, A. S.

ORG: none

TITLE: Mossbauer effect in the ferroelectric $\text{Pb}(\text{Fe}_{1/2}\text{Nb}_{1/2})\text{O}_3$

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 3, no. 5, 1966, 212-216

TOPIC TAGS: ferroelectric material, Mossbauer spectrum, multiplet splitting, critical point, phase transition, Curie point, electron spin

ABSTRACT: The purpose of the investigation was to check on the presence of a minimum of the probability of the Mossbauer effect on Sn^{119} in the investigated compound, similar to that observed for $\text{Ba}(\text{TiSn})\text{O}_3$ (with different Ti/Sn ratios) by V. A. Bokov et al. (FTT v. 7, 1886, 1965 and elsewhere). It was also desired to check on other singularities in the behavior of the quadrupole splitting and of the position of the symmetry center of the Mossbauer spectrum observed near the temperature T_c of the ferroelectric phase transition. To this end, the authors investigated the variation of the parameter of the Mossbauer absorption spectrum of Fe^{57} nuclei of the ferroelectric in question at the phase transition temperature ($T_c = 114^\circ\text{C}$). The absorbers were made by the usual ceramic technology, using $\text{Fe}_2^{57}\text{O}_3$ (60% Fe^{57}). The source was Co^{57} in stainless steel. The apparatus for the Mossbauer spectra is described by the authors elsewhere (PTE No. 4, 43, 1964). The results confirm the existence of the

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L 24372-66

ACC NR: AF6010437

10

singularities in the vicinity of the Curie point $T_c = 234^\circ\text{C}$ and a minimum in the Mossbauer-effect probability. These singularities are apparently connected with the fact that an anomalous decrease in the frequency of one of the transverse optical branches of the lattice takes place on approaching the ferroelectric transition point in crystals with perovskite structure. The decrease in the quadrupole splitting with increase of temperature to T_c is connected with a decrease in the spontaneous polarization. The asymmetry of the quadrupole-splitting line, which has a minimum near T_c and reverses sign, can be due either to anisotropy of the Mossbauer-effect probability or to relaxation of the electron spins in a ferromagnet. It is concluded that an investigation of the temperature variation of the asymmetry can give important information on the dynamics of the realignment of the crystal structure during the ferroelectric transition. The authors thank F. Ye. Chukreyev and V. I. Man'ko for the computer programming, Yu. M. Kagan, A. M. Afanas'yev, B. N. Samoilov, and B. I. Verkin for discussions, K. P. Aleshin for producing the electronic part of the Mossbauer spectrometer, I. B. Filippov for help with the experiments, and L. I. Kazakevich and E. M. Kabanova for help with the measurements. Orig. art. has: 2 figures.

SUB CODE: 20/ SUBM DATE: 17Jan66/ ORIG REF: 010/ OTH REF: 005

Card 2/2

SPIVAK, P.Ye.; MIKAELYAN, L.A.; KUTIKOV, I.Ye.; APALIN, V.F.; LUKASHEVICH,
I.I.; SMIRNOV, G.V.

Asymmetry of double Mott scattering of electrons in the energy
range between 45 and 245 Kev. Zhur.eksp.i teor.fiz. 41 no.4:
1064-1068 0 '61. (MIRA 14:10)
(Electrons--Scattering)

L 16552-65 EWT(1)/EEG(t) Feb ESD(t)/ESD(gs)/AEDC(a)/SSD/AFWL/AS(mp)-2/
JIP(c)

ACCESSION NR: AP4044667

5/0120/64/000/004/0043/0049

AUTHOR: Aleshin, K. P.; Lukashevich, I. I.; Samoylov, B. N.;
Sklyarevskiy, V. V.; Stepanov, Ye. P.; Filippov, N. I.

TITLE: System for investigating the Mossbauer effect

SOURCE: Pribery* i tekhnika eksperimenta, no. 4, 1964, 43-49

TOPIC TAGS: Mossbauer effect, Mossbauer effect investigation, vibrator, aerodynamic vibrator, Mossbauer spectrum, gamma ray, gamma ray source

ABSTRACT: The proposed system, in which motion is produced by a special electrodynamic vibrator at a constant velocity of up to ~ 8 cm/sec, was designed for investigating the Mossbauer effect. The low amplitude of source motion (1-2 mm) makes it possible to conduct both the absorption and the dispersion measurements of the Mossbauer spectra. The electrodynamic vibrator, which is described in detail, provides for a constant velocity within $\pm 1\%$. The vibrator makes it possible to conduct measurements at frequencies of up to 20 cps. The maximum velocity of 8 cm/sec is achieved at 16 cps. The electronic part of the system provides for registration by means of a NaI (Tl) crystal and a photomultiplier of γ -quanta passing through a resonant absorber. From the photomultiplier the pulses are applied to a single-channel analyzer whose window is directed toward the photopeak of the

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L 16552-65

ACCESSION NR: AP4044667

Y-rays investigated. The equipment is designed so as to make it possible to change the measurement time easily and to pass from one operating frequency to another. The resolution time of the registration channel is ~ 1 μ sec. The characteristics and velocity calibration of the system were studied by measuring the absorption spectrum of Fe^{57} γ -rays with an energy of 14.4 kev. The source was Co^{57} , and the absorber was $\text{Fe}_2^{57}\text{O}_3$. Measurements of the line drift have shown that after heating the system for 2 hr, the drift in velocity does not exceed $\pm 0.5\%$ for 8 hr of operation. Orig. art. has: 6 figures.

ASSOCIATION: none

SUBMITTED: 23Jul63

ENCL: 00

SUB CODE: EM, EC, NF

NO REF SOV: 003

OTHER: 003

Card 2/2

LUKASHEVICH, I. I., SAMOYLOV, B. N., STEPANOV, YE. P., SYKLAREVSKIY, V. V., and
ALESHIN, K. P., GOROBCHENKO, V. D.,

"Unsplit Absorption line of Dy^{161} of Natural Width in Dy^{203} at $t = 500^{\circ}C$,"

report presented at the 3rd Intl. Conf. on the Mossbauer Effect, Cornell Univ.,
New York, 4-7 Sep 63

ACC NR: AP7007680

SOURCE CODE: UR/0386/66/003/002/0081/0085

AUTHOR: Lukashevich, I. I.; Sklyarevskii, V. V.; Aleshin, K. P.; Samoylov, B. N.; Stepanov, Ye. P.; Filippov, N. I.

ORG: none

TITLE: Mossbauer effect on Dy sup 161 impurity nuclei in metallic gadolinium

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu, v. 3, No. 2, 1966, 81-85

TOPIC TAGS: dysprosium, gadolinium, Mossbauer effect, Mossbauer spectrum, cryostat, gamma spectrometer

ABSTRACT: Irradiation of metallic gadolinium in a reactor (97% Gd¹⁶⁰) gives rise to the reaction Gd¹⁶⁰(n γ)Gd¹⁶¹ 3.7 min, Tb¹⁶¹, and the decay of the Tb¹⁶¹ causes emission of γ rays of Dy¹⁶¹. The authors investigated the Mossbauer spectra of such a source, constituting in fact Dy¹⁶¹ impurity nuclei in a gadolinium lattice. The magnetic properties of the gadolinium matrix were investigated by studying the hyperfine splitting of the γ rays of these Dy¹⁶¹ nuclei.

The absorber used was polycrystalline Dy₂O₃ (40 mg/cm², 90% Dy¹⁶¹). At T = 300°K, the Dy₂¹⁶¹O₃ has a "thick" absorption line (~1 cm/sec, Γ_{nat} = 0.02 cm/sec), which is suitable, however, for the study of large magnetic hyperfine splittings of the source (~25 cm/sec).

A Mossbauer spectrometer was used with a permanent-magnet vibrator, operating in

Card 1/4

UDC: none

ACC NR: AP7007680

the constant-velocity mode. The spectra were measured at different source temperatures from 5 to 300°K. (See Fig. 1)

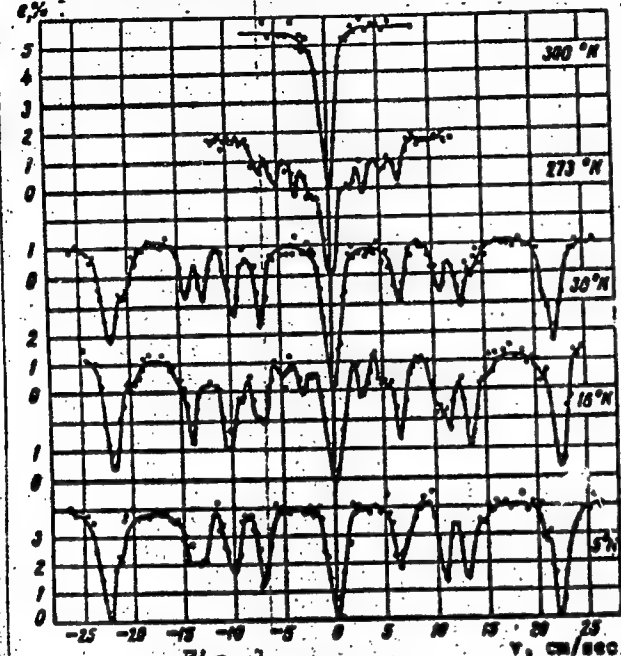


Fig. 1

Card 2/4

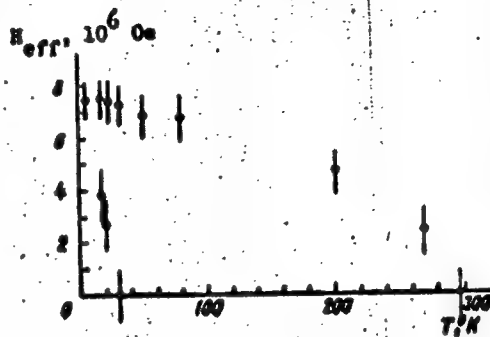


Fig. 2.

ACC NR: AP7007680

At $T = 5^\circ\text{K}$ the spectrum is the usual hyperfine splitting spectrum of Dy^{161} , consisting of 14 lines (not all lines are resolved). The magnitude of the magnetic splitting corresponds to a field $\sim 7.3 \times 10^6$ Oe on the Dy nuclei. At $T = 16^\circ\text{K}$ the number of lines increases, and at $T = 30^\circ\text{K}$ it assumes the previous value, but the relative intensity of the central peak increases sharply compared with the spectrum at 5°K . With further rise in temperature the magnetic splitting decreases gradually and finally vanishes near the Curie point of gadolinium.

This behavior of the spectra can be explained as follows. At $T = 5^\circ\text{K}$ there are two different systems of lines (two different spectra) with approximately identical hyperfine splitting. With increasing temperature, the magnetic splitting of one of these spectra decreases rapidly and vanishes at $T = 30^\circ\text{K}$. The lines of the spectra are crowded together and enter the central peak, thus increasing its intensity. Measurements of individual spectral lines at $T = 7.5$ and 10°K have made it possible to trace the broadening and the splitting of the spectral lines at 5°K . In addition, we measured the individual lines of the spectrum at $T = 5^\circ\text{K}$ with an absorber heated to $T = 800^\circ\text{K}$ and having a narrower line than at $T = 300^\circ\text{K}$. These measurements have shown that the spectral lines at 5°K are doublets, i.e., this spectrum consists of two different spectra with somewhat differing hyperfine splittings. Two systems of hyperfine splittings were found to correspond to two different states of the electron shell of the Dy ions, produced in the β decay of Tb^{161} . A distinctive feature of this case is that it is observed in a metal, where the relaxation times of the electron shell should seemingly be small. Figure 2 shows the temperature dependence of the

Card 3/4

ACC NR: AP7007680

fields on the Dy^{161} nuclei, corresponding to these two systems of hyperfine splitting. For $T = 200$ and $273^\circ K$, H_{nuc} was obtained from the position of the outermost lines of the spectrum. The $H_{nuc}(T)$ for the second system vanishes near the Curie point of gadolinium. The variation of $H_{nuc}(T)$ for the first system apparently shows that the corresponding Dy ions behave like paramagnetic ions in gadolinium. Reduction of the spectra of Fig. 1 yielded for the ratio of the magnetic and quadrupole moments of the first-excited and ground states values $\mu_1/\mu_0 = -1.2 \pm 0.1$ ($\mu_0 = -0.37 \pm 0.05$), $Q_1/Q_0 = 0.85 \pm 0.1$. The quadrupole splittings $W = (1/4)eqQ_0$ at temperatures 30 and $80^\circ K$ turned out to be 660 ± 60 and 530 ± 50 Mcs. The authors thank I. B. Filupov for help; N. E. Yukovich, V. A. Drozdov, and V. S. Sheffer for supplying the liquid helium; Yu. Kagan and A. M. Afanas'yev for discussion of the results; and V. Ye. Keylin for help in constructing the cryostat. Orig. art. has: 2 figures.

SUB CODE: 20 / SUBM DATE: 29Nov65 / ORIG REF: 001 /
OTH REF: 004

Card 4/4

L 34535-65 EMP(j)/EWT(m) Pc-4 EM

ACCESSION NR: AP5001084

S/0286/64/000/022/0044/0044

AUTHORS: Lukashevich, I. P.; Kazakova, L. P.; Shchegrova, K. A.

TITLE: A method for obtaining wax admixture for protecting rubber products.

Class 23, No. 166435

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 22, 1964, 44

TOPIC TAGS: rubber, rubber product, rubber technology, rubber research, hydrocarbon, petroleum, nitrogen, paraffin

ABSTRACT: This Author Certificate presents a method for obtaining (by de-oiling solid petroleum hydrocarbons) a wax admixture for protecting rubber products from nitrogen cracking. Petrolatum is first subjected to de-oiling and is then deparaffinized with carbamide or by means of progressive de-oiling.

ASSOCIATION: none

SUBMITTED: 11Mar64

ENCL: 00

SUB CODE: IE, MT

NO REF SOV: 000

OTHER: 000

Card 1/1

22

Melting of greases. D. S. Velikovskii, I. P. Lukashevich and F. I. Borshchevskaya. *Nefteyane Khoz.* 1938, No. 3, 80-81. --The temps. of drop formation and sepn. are lowered, the duration of melting at the temp. of sepn. of the first drop reduced and the thermal stability lowered (amt. oil sepd. when kept in the thermostat is increased), with an increase of unsatn. in the saponified fat and an increase of valence of the soap base. The physical and colloidal characteristics, such as the soap concn. in the grease, the viscosity of the mineral oil, degree of refining of the mineral oil (i. e., changes in the content of surface-active substances), do not show the same relations in the various methods of investigation of the melting of the grease. Direct relation is not observed between the temps. of drop sepn. and drop formation and (a) soap concn. in soda greases; (b) viscosity of the mineral oil in soda and greases; (c) degree of refining of the grease at lime greases. The duration of melting of the grease at lime greases increases with increase of viscosity of the mineral oil in lime and soda greases. Thermal stability also improves with increase of soap concn. and viscosity of mineral oil. The effect of degree of refining of the mineral oil on the duration of first drop is different from its effect on the sepn. of oil in the thermostat (thermal stability). For lime greases, there was obtained a max.

curve of the dependence of thermal stability on the degree of refining of the mineral oil, and a uniformly increasing curve of duration of melting against degree of oil refining. Soda greases show "antibatic" relations of drop formation, sepn. temps. and the thermal stability. The thermal stability curve decreases steadily with further refining of the oil. Duration of melting is prolonged with a decrease in degree of refining (increase in surface-active substances, which are removed in the refining), but the curve obtained is less characteristic. The difference in the behavior of lime and soda greases is expressed by the effect of the water present beyond the solvating sphere in the lime greases and the structure of the grease. The most important characteristic of the melting of greases is their thermal stability. Ten references. A. A. Bozhil'nik

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Effect of the properties of the basic components of lubricating greases on their consistency at low temperatures. L. P. Litkashchik. *Trudy Akad. Nauk SSSR, Inst. Khim. Tver. Akad. Nauk SSSR*, No. 4, 127-131. Consistency of lubricating greases of varying composition was studied at 0 to -50°C by means of a penetrometer. Consistency (K) was defined as $K = 100/P$ where P = penetration. The K for greases prep. from mineral oil of low f.p. was lower than the K for greases from oil of higher f.p. but similar to higher f.p. of oil also led to higher K . Action of depressing varied, depending on whether ceresin or sodium stearate was used as thickening agent. Ceresin grease prep. from oil distillate had higher K at -50° to -55° than grease prep. from white oil, but sodium stearate grease from distillate had lower K at 0 to -40° than that from white oil. The relative effects of soaps of Na, Ca, and Al varied at different concns. and depended on their depressing action and soly. in mineral oil. Polymerized fats and terpenes lowered K . Nancy Corbin.

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Lubricating oil. N. I. Chernozhukov, I. P. Lukashovich, A. V. Klapovskaya, and K. V. Bauman. U.S.S.R. 69723, Nov. 30, 1947. Oil is treated with an Al silicate catalyst at a temp. above 370° but below the cracking temp. The product is freed of the light fractions by distn. Oil thus treated has a higher index of viscosity and better stability.

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